

II. CLAIM AMENDMENTS

1 - 12 (Cancelled)

13. (Currently Amended) A semiconductor module comprising:

a case;

a base member fixedly held in the case, wherein the base member has greater thermal conductivity than that of the case;

a holding member for fixedly holding a semiconductor laser element;

a hole formed in the case for communicating with the outside of the case and exposing a part of the base member to the outside of the case; and

a thermal adhesive member having thermal conductivity and disposed between the holding member and the base member, the thermal adhesive member being meltable when radiation is provided through the hole thereto.

14. (Cancelled)

15. (Previously Presented) A semiconductor module according to claim 13, wherein the hole is disposed opposite to the holding member with respect to the base member.

16. (Previously Presented) A semiconductor module according to claim 13, wherein the semiconductor module has a plurality of sets each having the holding member, the base member, the hole and the thermal adhesive member in the case.

17. (Previously Presented) A semiconductor module according to claim 13, further comprising an optical system guiding a laser beam emitted from the semiconductor laser element to outside of the semiconductor module, the optical system having optical components disposed in the case.

18. (Currently Amended) A mounting method of a semiconductor laser element of a semiconductor module, for mounting the semiconductor laser element at an optical position where predetermined optical adjustment has been carried out with respect to an optical system formed by optical components disposed in a case of the semiconductor module, the mounting method comprising the steps of:

providing the case with a base member fixedly held therein and a hole formed in the case for communicating with the outside of the case to expose a part of the base member to the outside of the case, wherein the base member has greater thermal conductivity than that of the case;

providing a holding member fixedly holding the semiconductor laser element;

providing a meltable thermal adhesive member having thermal conductivity and disposing the thermal adhesive member between the holding member and the base member,

positioning the base member so that the semiconductor laser element is placed at the optical position; and

heating the base member by radiation provided through said hole formed in the case.

19. (Cancelled)

20. (Previously Presented) A mounting method according to claim 18, wherein the hole is disposed opposite to the holding member with respect to the base member.

21. (Previously Presented) A mounting method according to claim 18, further comprising providing the semiconductor module with a plurality of sets each having the holding member, the base member, the hole and the thermal adhesive member in the case.

22. (Previously Presented) A mounting method according to claim 18, further comprising providing the semiconductor module with an optical system guiding a laser beam emitted from the semiconductor laser element to outside of the semiconductor module, the optical system having optical components disposed in the case.